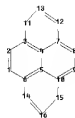
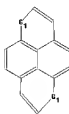


STN-10597, 981

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ring nodes :
1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16
ring bonds :
1-2  1-6  2-3  3-4  3-11  4-5  4-7  5-6  5-10  6-14  7-8  7-12  8-9  9-10  10-15
11-13  12-13  14-16  15-16
exact/norm bonds :
3-11  6-14  7-12  10-15  11-13  12-13  14-16  15-16
normalized bonds :
1-2  1-6  2-3  3-4  4-5  4-7  5-6  5-10  7-8  8-9  9-10
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G1:O,S

Match level :

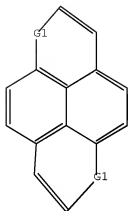
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11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR



G1 O,S

Structure attributes must be viewed using SIN Express query preparation.

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=> s L1
SAMPLE SEARCH INITIATED 10:48:10 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      5943 TO ITERATE

 33.7% PROCESSED      2000 ITERATIONS                2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01
```

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FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:   114238 TO 123482
PROJECTED ANSWERS:      2 TO    264
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L2 2 SEA SSS SAM L1

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=> s L1 sss full
FULL SEARCH INITIATED 10:48:29 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 118261 TO ITERATE
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100.0% PROCESSED 118261 ITERATIONS (    1 INCOMPLETE)    139 ANSWERS
SEARCH TIME: 00.00.02
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L3 139 SEA SSS FUL L1

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s L3
L4          63 L3
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=> s L3 sss full
L5          63 L3
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=> d L5 ibib abs hitstr 1-5
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L5 ANSWER 1 OF 63 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:4025 CAPLUS Full-text

DOCUMENT NUMBER: 150:88547

TITLE: Heteropyrene-based semiconductor materials for electronic devices and methods of making the same
INVENTOR(S): Shukla, Deepak; Welter, Thomas Robert; Carroll-Lee, Ann L.; Ahearn, Wendy Gail; Robello, Douglas Robert

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: PCT Int. Appl., 42pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009002405	A1	20081231	WO 2008-US7386	20080613
<p>W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW</p> <p>RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM</p>				
US 20090001353	A1	20090101	US 2007-768262	20070626
PRIORITY APPLN. INFO.:			US 2007-768262	A 20070626
OTHER SOURCE(S): MARPAT 150:88547				

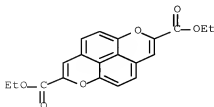
AB There is a need for new organic semiconductors that are chemical stable and provide stable and reproducible elec. characteristics. A thin layer of organic semiconductor material comprising a comprising an organic semiconductor thin film material is disclosed in which the thin film material substantially comprises a heteropyrene compound or derivative. In one embodiment, a thin film transistor comprises a layer of the organic semiconductor material. Further disclosed is a process for fabricating an organic thin-film transistor device, preferably by relative low-temperature sublimation or solution-phase deposition onto a substrate.

IT 193902-20-4

RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(in preparation of heteropyrene semiconductors)

RN 193902-20-4 CAPLUS

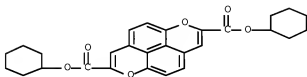
CN Naphtho[1,8-bc:5,4-b'c']dipyran-2,7-dicarboxylic acid, diethyl ester (9CI)
(CA INDEX NAME)



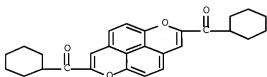
IT 194-07-0P 1094076-66-0P 1094076-67-1P
 1094076-68-2P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (preparation of)
 RN 194-07-0 CAPLUS
 CN [1]Benzo[thiopyrano[6,5,4-def]-1-benzothiopyran (CA INDEX NAME)



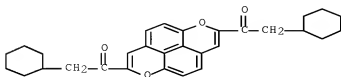
RN 1094076-66-0 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



RN 1094076-67-1 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



RN 1094076-68-2 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 63 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:3507 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 150:88508

TITLE: Heteropyrene-based semiconductor materials for electronic devices and methods of making the same
INVENTOR(S): Shukla, Deepak; Welter, Thomas R.; Carroll-Lee, Ann L.; Ahearn, Wendy G.; Robello, Douglas R.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 14pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090001353	A1	20090101	US 2007-768262	20070626
WO 2009002405	A1	20081231	WO 2008-US7386	20080613
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2007-768262 A 20070626

AB There is a need for new organic semiconductors that are chemical stable and provide stable and reproducible elec. characteristics. A thin layer of organic semiconductor material comprising a comprising an organic semiconductor thin film material is disclosed in which the thin film material substantially comprises a heteropyrene compound or derivative. In one embodiment, a thin film transistor comprises a layer of the organic semiconductor material. Further disclosed is a process for fabricating an organic thin-film transistor device, preferably by relative low-temperature sublimation or solution-phase deposition onto a substrate.

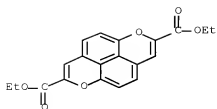
IT 193902-20-4

RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(in preparation of heteropyrene semiconductors)

RN 193902-20-4 CAPLUS

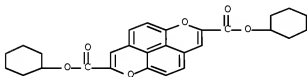
CN Naphtho[1,8-bc:5,4-b'c']dipyran-2,7-dicarboxylic acid, diethyl ester (9CI)
(CA INDEX NAME)



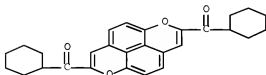
IT 194-07-0P 1094076-66-0P 1094076-67-1P
 1094076-68-2P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (preparation of)
 RN 194-07-0 CAPLUS
 CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran (CA INDEX NAME)



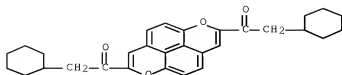
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RN 1094076-67-1 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



RN 1094076-68-2 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



L5 ANSWER 3 OF 63 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1438809 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 150:156079

TITLE: Photoinduced charge transfer in fullerene-donor dyads:
A theoretical study

AUTHOR(S): Petsalakis, Ioannis D.; Theodorakopoulos, Giannoula

CORPORATE SOURCE: Theoretical and Physical Chemistry Institute, The
National Hellenic Research Foundation, Athens, 116 35,
Greece

SOURCE: Chemical Physics Letters (2008), 466(4-6), 189-196
CODEN: CHPLBC; ISSN: 0009-2614

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB D. functional theory and time dependent d. functional theory calcns. have been carried out on hybrid systems of interest for photoinduced charge transfer, consisting of dyads of fulleropyrrolidine as acceptor and pyrene, dithiapyrene, tetrathiofulvalene and porphyrin as donors. When the donor mols. are in close proximity to fullerene, charge transfer ($D \rightarrow A^*$) and in some cases also fullerene ($A \rightarrow A^*$) excitations contribute to the donor absorption ($D \rightarrow D^*$) transition. When the donor is attached to a spacer chain, $D \rightarrow D^*$, $D \rightarrow A^*$ and $A \rightarrow A^*$ are calculated as sep. transitions, their near-degeneracy suggestive of the occurrence of charge and/or energy transfer through interaction of these states.

IT 1028996-40-8

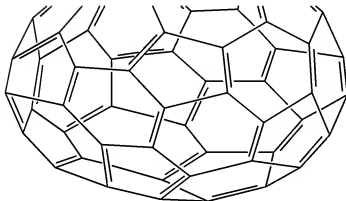
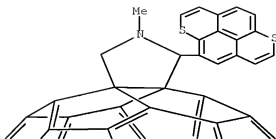
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)

(theor. study of photoinduced charge transfer in fulleropyrrolidine
dyads containing pyrene, dithiapyrene, tetrathiofulvalene or porphyrin
donors)

RN 1028996-40-8 CAPLUS

CN 2'-H-[5,6]Fullereno-C60-Ih-[1,9-c]pyrrole,

2'-[1]benzothiopyrano[6,5,4-def]-1-benzothiopyran-5-yl-1',5'-dihydro-1'-
methyl- (CA INDEX NAME)



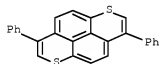
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 63 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:940222 CAPLUS Full-text
 DOCUMENT NUMBER: 149:213863
 TITLE: Organic thin film transistors
 INVENTOR(S): Fujiyama, Takahiro; Toya, Yoshiyuki; Nakatsuka, Masakatsu
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

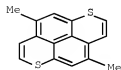
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008181993	A	20080807	JP 2007-13274	20070124
PRIORITY APPLN. INFO.:			JP 2007-13274	20070124
OTHER SOURCE(S):		MARPAT 149:213863		
AB	Title transistors contain [1]benzothiopyrano(6,5,4-def)-1-benzothiopyran derivs., showing high ON/OFF ratio, storage stability, and charge mobility.			
IT	194-07-0 102284-00-4 160038-08-4 1042137-63-2 1042137-64-3 1042137-65-4 1042137-66-5 1042137-67-6 1042137-68-7 1042137-69-8 1042137-70-1 1042137-71-2 1042137-72-3 1042137-74-5			
RL:	TEM (Technical or engineered material use); USES (Uses) (organic thin film transistors containing [1]benzothiopyrano(6,5,4-def)-1-benzothiopyran derivs. and showing high ON/OFF ratio)			
RN	194-07-0 CAPLUS			
CN	[1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran (CA INDEX NAME)			



RN 102284-00-4 CAPLUS
CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 3,8-diphenyl- (9CI) (CA INDEX NAME)

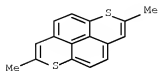


RN 160038-08-4 CAPLUS
CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 4,9-dimethyl- (9CI) (CA INDEX NAME)



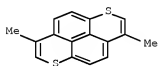
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CN [1]Benzo[thiopyrano[6,5,4-def]-1-benzothiopyran, 2,7-dimethyl- (CA INDEX NAME)



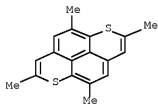
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CN [1]Benzo[thiopyrano[6,5,4-def]-1-benzothiopyran, 3,8-dimethyl- (CA INDEX NAME)



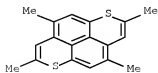
RN 1042137-65-4 CAPLUS

CN [1]Benzo[thiopyrano[6,5,4-def]-1-benzothiopyran, 2,5,7,10-tetramethyl- (CA INDEX NAME)



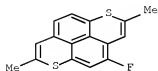
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CN [1]Benzo[thiopyrano[6,5,4-def]-1-benzothiopyran, 2,4,7,9-tetramethyl- (CA INDEX NAME)



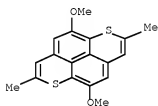
RN 1042137-67-6 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 4-fluoro-2,7-dimethyl-
(CA INDEX NAME)



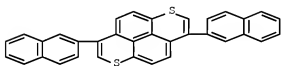
RN 1042137-68-7 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran,
5,10-dimethoxy-2,7-dimethyl- (CA INDEX NAME)



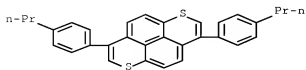
RN 1042137-69-8 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 3,8-di-2-naphthalenyl-
(CA INDEX NAME)



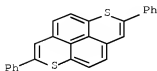
RN 1042137-70-1 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 3,8-bis(4-propylphenyl)-
(CA INDEX NAME)



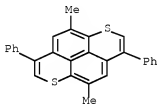
RN 1042137-71-2 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 2,7-diphenyl- (CA INDEX NAME)



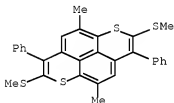
RN 1042137-72-3 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 5,10-dimethyl-3,8-diphenyl- (CA INDEX NAME)



RN 1042137-74-5 CAPLUS

CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran, 5,10-dimethyl-2,7-bis(methylthio)-3,8-diphenyl- (CA INDEX NAME)



L5 ANSWER 5 OF 63 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:502848 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 149:9561

TITLE: Contrasting photodynamics between C60-dithiapyrene and C60-pyrene dyads

AUTHOR(S): Guldi, Dirk M.; Spaenig, Fabian; Kreher, David; Perepichka, Igor F.; van der Pol, Cornelia; Bryce, Martin R.; Ohkubo, Kei; Fukuzumi, Shunichi

CORPORATE SOURCE: Institute for Physical Chemistry, Friedrich-Alexander-Universitaet Erlangen-Nuernberg, Erlangen, 91058, Germany

SOURCE: Chemistry--A European Journal (2008), 14(1), 250-258
CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The photodynamics of a C60-dithiapyrene donor-acceptor conjugate were compared with the corresponding C60-pyrene conjugate. The photoinduced charge separation and subsequent charge recombination processes were examined by time-resolved fluorescence measurements on the picosecond timescale and transient absorption measurements on the picosecond and microsecond timescales with detection in the visible and near-IR regions. We have observed quite long lifetimes (i.e., up to 1.01 ns) for the photogenerated charge-separated state in a C60-dithiapyrene dyad without the need for i. a long spacer between the two moieties, or ii. a gain in aromaticity in the radical ion pair.

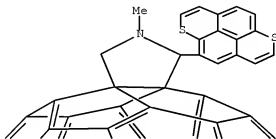
IT 1028996-4Q-8P

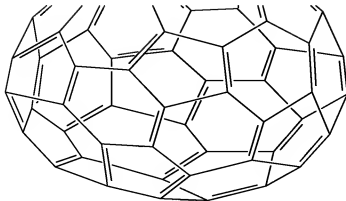
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(contrasting photodynamics between C60-dithiapyrene and C60-pyrene dyads)

RN 1028996-40-8 CAPLUS

CN 2'H-[5,6]Fullereno-C60-Ih-[1,9-c]pyrrole,
2'-[1]benzothiopyrano[6,5,4-def]-1-benzothiopyran-5-yl-1',5'-dihydro-1'-methyl- (CA INDEX NAME)

PAGE 1-A





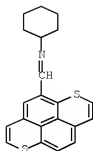
IT 194-07-0P 1028996-36-2P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (contrasting photodynamics between C60-dithiapyrene and C60-pyrene dyads)
 RN 194-07-0 CAPLUS
 CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran (CA INDEX NAME)



RN 1028996-36-2 CAPLUS
 CN [1]Benzothiopyrano[6,5,4-def]-1-benzothiopyran-5-carboxaldehyde (CA INDEX NAME)



IT 1028996-38-4P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (contrasting photodynamics between C60-dithiapyrene and C60-pyrene dyads)
 RN 1028996-38-4 CAPLUS
 CN Cyclohexanamine, N-([1]benzothiopyrano[6,5,4-def]-1-benzothiopyran-5-ylmethylene)- (CA INDEX NAME)



REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s L5 and semiconductor?
 732283 SEMICONDUCT?
 2666 SEMICON
 19 SEMICONDS
 2679 SEMICON
 (SEMICON OR SEMICONDS)
 733021 SEMICONDUCT?
 (SEMICONDUCT? OR SEMICON)
 L6 7 L5 AND SEMICONDUCT?

=> d L6 ibib abs 1-7

L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2009 ACS on SIN
 ACCESSION NUMBER: 2009:4025 CAPLUS Full-text
 DOCUMENT NUMBER: 150:88547
 TITLE: Heteropyrene-based semiconductor materials
 for electronic devices and methods of making the same
 INVENTOR(S): Shukla, Deepak; Welter, Thomas Robert; Carroll-Lee,
 Ann L.; Ahearn, Wendy Gail; Robello, Douglas Robert
 PATENT ASSIGNEE(S): Eastman Kodak Company, USA
 SOURCE: PCT Int. Appl., 42pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009002405	A1	20081231	WO 2008-US7386	20080613
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,				

TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 20090001353 A1 20090101 US 2007-768262 20070626

PRIORITY APPLN. INFO.: US 2007-768262 A 20070626

OTHER SOURCE(S): MARPAT 150:88547

AB There is a need for new organic semiconductors that are chemical stable and provide stable and reproducible elec. characteristics. A thin layer of organic semiconductor material comprising a comprising an organic semiconductor thin film material is disclosed in which the thin film material substantially comprises a heteropyrene compound or derivative. In one embodiment, a thin film transistor comprises a layer of the organic semiconductor material. Further disclosed is a process for fabricating an organic thin-film transistor device, preferably by relative low-temperature sublimation or solution-phase deposition onto a substrate.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:3507 CAPLUS Full-text

DOCUMENT NUMBER: 150:88508

TITLE: Heteropyrene-based semiconductor materials
 for electronic devices and methods of making the same
 INVENTOR(S): Shukla, Deepak; Welter, Thomas R.; Carroll-Lee, Ann
 L.; Ahearn, Wendy G.; Robello, Douglas R.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 14pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090001353	A1	20090101	US 2007-768262	20070626
WO 2009002405	A1	20081231	WO 2008-US7386	20080613
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: US 2007-768262 A 20070626

AB There is a need for new organic semiconductors that are chemical stable and provide stable and reproducible elec. characteristics. A thin layer of organic semiconductor material comprising a comprising an organic semiconductor thin film material is disclosed in which the thin film material substantially comprises a heteropyrene compound or derivative. In one embodiment, a thin film transistor comprises a layer of the organic semiconductor material. Further disclosed is a process for fabricating an organic thin-film transistor device, preferably by relative low-temperature sublimation or solution-phase deposition onto a substrate.

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1185458 CAPLUS Full-text

DOCUMENT NUMBER: 144:69515

TITLE: 2-Iodo-1,6-dithiapyrene: Syntheses, crystal structures

and physical properties of CT complexes and salt

AUTHOR(S): Miyazaki, Eigo; Morita, Yasushi; Nakasuji, Kazuhiro

CORPORATE SOURCE: Department of Chemistry, Graduate School of Science,
Osaka University, Machikaneyama 1-1, Toyonaka, Osaka,
560-0043, Japan

SOURCE: Polyhedron (2005), 24(16-17), 2632-2638

CODEN: PLYHDE; ISSN: 0277-5387

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:69515

AB 2-Iodo-1,6-dithiapyrene (IDTPY) was designed and synthesized as a new electron-donor mol. with halogen-bonding functionality, and possesses an adequate solubility and a moderate electron-donating ability comparable to that of ethylenedithio-tetrathiafulvalene. IDTPY formed a two-dimensional sheet structure through strong I...S and weak S...S interactions in the crystal. The DDQ, cyananilic acid, nitranilic acid (H2NRAL) complexes and NO3- salt of IDTPY have been newly synthesized. In the crystals of H2NRAL complex and NO3- salt of IDTPY, there are dimeric structures of IDTPY+ and intermol. I...O contacts between IDTPY and NRAL2- or NO3-. The room temperature elec. conductivities of their CT complexes and salt were $1.5 + 10^{-2}$ - $7.3 + 10^{-6}$ S cm⁻¹.

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:749492 CAPLUS Full-text

DOCUMENT NUMBER: 138:136816

TITLE: Synthesis of new 2,7-diiodo-1,6-dithiapyrene and crystal structures of its charge-transfer salts

AUTHOR(S): Morita, Yasushi; Miyazaki, Eigo; Maki, Suguru; Toyoda, Jiro; Yamochi, Hideki; Saito, Gunzi; Nakasuji, Kazuhiro

CORPORATE SOURCE: Department of Chemistry, Graduate School of Science,
Osaka University, Osaka, 560-0043, Japan

SOURCE: Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (2002), 379, 77-82

CODEN: MCLCE9; ISSN: 1058-725X

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:136816

AB We have designed and synthesized 2,7-diiodo-1,6-dithiapyrene (DIDTPY) as a first halogenated DTPY derivative. The X-ray structural analyses showed that the charge-transfer salts, (DIDTPY)(PF6) and (DIDTPY)1.5(AuBr2), possessed dimeric pairs of the cationic donor mols. and columnar stack of donor mols., resp. The conductivity of the compressed pellet for (DIDTPY)1.5(AuBr2) exhibited a semiconducting behavior ($\sigma_{\text{r}} = 2 + 10^{-2}$ Scm⁻¹).

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

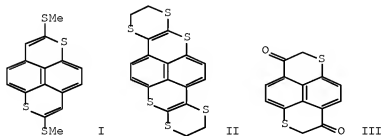
ACCESSION NUMBER: 1994:258021 CAPLUS Full-text

DOCUMENT NUMBER: 120:258021

ORIGINAL REFERENCE NO.: 120:45411a,45414a
 TITLE: Crystal structure of two isostructural tetramethyldioxapyrene salts
 AUTHOR(S): Hjørth, Michael; Thorup, Niels; Christensen, Jorn B.; Bechgaard, Klaus
 CORPORATE SOURCE: Chem. Dep. B, Tech. Univ. Denmark, Lyngby, DK-2800, Den.
 SOURCE: Zeitschrift fuer Kristallographie (1993), 207(1), 91-101
 CODEN: ZEKRDZ; ISSN: 0044-2968
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The crystal structures of 2 organic conductors di(3,5,8,10-tetramethyl-1,6-dioxapyrenium) tetrafluoroborate, (C18H16O2)2BF4, and di(3,5,8,10-tetramethyl-1,6-dioxapyrenium) hexafluorophosphate, (C18H16O2)2PF6, were studied with single crystal x-ray diffraction methods. The 2 salts are isostructural and crystallize in the space group Pmna, Z = 2, with a 6.772(1), b 9.762(1) and c 21.825(2) Å for the BF4- salt and a 6.792(1), b 9.769(1) and c 22.096(3) Å for the PF6- salt. The models were refined to R's = 0.082 (BF4-) and 0.069 (PF6-) using 860 and 979 reflections, resp. The tetramethyldioxapyrene mols. lie on mirror planes stacked along the a-axis with an interplanar distance of exactly a/2 (3.386 and 3.396 Å for the BF4- and PF6- structure, resp.). The BF4- anion exhibits considerable disorder whereas the PF6- anion is ordered, which is reflected in the higher R-value for the BF4- structure. Both salts are semiconductors. Atomic coordinates are given.

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1989:183882 CAPLUS Full-text
 DOCUMENT NUMBER: 110:183882
 ORIGINAL REFERENCE NO.: 110:30325a,30328a
 TITLE: Electronic properties of new organic conductors based on 2,7-bis(methylthio)-1,6-dithiapyrene (MTDTPY) with TCNQ and p-benzoquinone derivatives
 AUTHOR(S): Imaeda, Kenichi; Enoki, Toshiaki; Mori, Takehiko; Inokuchi, Hiroo; Sasaki, Mitsuru; Nakasuji, Kazuhiro; Murata, Ichiro
 CORPORATE SOURCE: Inst. Mol. Sci., Okazaki, 444, Japan
 SOURCE: Bulletin of the Chemical Society of Japan (1989), 62(2), 372-9
 CODEN: BC5JA8; ISSN: 0009-2673
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The electronic properties of charge-transfer (CT) complexes based on a new organic donor MTDTPY with TCNQ and p-benzoquinone derivs. (fluoranil (FLL), chloranil (CHL), bromanil (BRL), and DDQ) have been investigated by means of elec. conductivity, thermoelec. power, ESR, and band calcn. β -MTDTPY-TCNQ, MTDTPY-CHL, and MTDTPY-BRL show a metallic elec. conduction. MTDTPY-CHL and MTDTPY-BRL are the first organic metals among the CT complexes with p-benzoquinone derivs. The metal-insulator (M-I) transition takes place around 110, 240, and 125 K for β -MTDTPY-TCNQ, MTDTPY-CHL, and MTDTPY-BRL, resp. The sharp ESR linewidth and large anisotropy of the transfer integral for β -MTDTPY-TCNQ and MTDTPY-CHL suggest a one-dimensional electronic property. Thus, the M-I transition for these complexes is caused by a Peierls instability. MTDTPY-CHL undergoes a first-order phase transition in the semiconducting phase. This phase transition disappears by applying pressure.

ACCESSION NUMBER: 1987:617513 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 107:217513
 ORIGINAL REFERENCE NO.: 107:34895a,34898a
 TITLE: Methylthio- and ethanedithiol-dithio-substituted
 1,6-dithiapyrenes and their charge-transfer complexes:
 new organic molecular metals
 AUTHOR(S): Nakasuji, Kazuhiro; Sasaki, Mitsuru; Kotani, Tomoyuki;
 Murata, Ichiro; Enoki, Toshiaki; Imaeda, Kenichi;
 Inokuchi, Hiroo; Kawamoto, Atsushi; Tanaka, Jiro
 CORPORATE SOURCE: Fac. Sic., Osaka Univ., Toyonaka, 560, Japan
 SOURCE: Journal of the American Chemical Society (1987),
 109(23), 6970-5
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 107:217513
 GI



AB Dithiapyrenes I and II and their charge-transfer complexes were prepared and their phys. properties reported. Thus, 1,5-naphthalenedithiol was S-alkylated with $\text{ClCH}_2\text{CO}_2\text{H}$ to give the diacid which was converted to the acid chloride with SOCl_2 and cyclized with AlCl_3 to give ketone III. Treatment of III with $\text{HSCH}_2\text{CH}_2\text{SH}$ gave the corresponding dithioketal, which was converted directly to II upon treatment with N-chlorosuccinimide. I and II show reversible 2-stage redox behavior with potentials comparable to that of tetrathiafulvalene. I produces 2 crystalline phases of 1:1 TCNQ complexes, the α -form (monoclinic) and the β -form (triclinic), which consist of mixed stacks and uniform segregated stacks of donors and acceptors, resp. The single-crystal conductivity of the β -form is metallic, while that of the α -form is semiconductive. I-chloranil crystallizes in uniform segregated stacks of donors and acceptors (triclinic). Its single-crystal conductivity is metallic.

=> s L5 and semiconduct?
 L7 1 L5 AND SEMICONDUCT?

=> d L7 ibib abs

L7 ANSWER 1 OF 1 USPATFULL on STN

ACCESSION NUMBER: 2009:1348 USPATFULL [Full-text](#)
 TITLE: HETEROPYRENE-BASED SEMICONDUCTOR MATERIALS

INVENTOR(S): FOR ELECTRONIC DEVICES AND METHODS OF MAKING THE SAME
 Shukla, Deepak, Webster, NY, UNITED STATES
 Welter, Thomas R., Webster, NY, UNITED STATES
 Carroll-Lee, Ann L., Webster, NY, UNITED STATES
 Ahearn, Wendy G., Rochester, NY, UNITED STATES
 Robello, Douglas R., Webster, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20090001353	A1	20090101
APPLICATION INFO.:	US 2007-768262	A1	20070626 (11)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Andrew J. Anderson, Patent Legal Staff, Eastman Kodak Company, 343 State Street, Rochester, NY, 14650-2201, US		
NUMBER OF CLAIMS:	25		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	1080		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A thin layer of organic semiconductor material comprising a comprising an organic semiconductor thin film material is disclosed in which the thin film material substantially comprises a heteropyrene compound or derivative. In one embodiment, a thin film transistor comprises a layer of the organic semiconductor material. Further disclosed is a process for fabricating an organic thin-film transistor device, preferably by relative low-temperature sublimation or solution-phase deposition onto a substrate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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=> e lithium silicate/cn
E1      1      LITHIUM SENSITIVE BISPHOSPHATE 3'-NUCLEOTIDASE 11.99 (HUMAN
          CLONE PBS-0726H03)/CN
E2      1      LITHIUM SILANOLATE/CN
E3      3 --> LITHIUM SILICATE/CN
E4      1      LITHIUM SILICATE (6LI4SI04)/CN
E5      1      LITHIUM SILICATE (LI18SI16041)/CN
E6      1      LITHIUM SILICATE (LI2(SI04))/CN
E7      1      LITHIUM SILICATE (LI2SI205)/CN
E8      1      LITHIUM SILICATE (LI2SI205) DHYDRATE/CN
E9      1      LITHIUM SILICATE (LI2SI307)/CN
E10     1      LITHIUM SILICATE (LI2SI409)/CN
E11     1      LITHIUM SILICATE (LI2SI5011)/CN
E12     1      LITHIUM SILICATE (LI2SI6013)/CN
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=> s e3
L1      3 "LITHIUM SILICATE"/CN
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=> s l1 and electrolumin?
          3123 L1
          101416 ELECTROLUMIN?
L2      13 L1 AND ELECTROLUMIN?
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=> d ibib abs hitstr 1-13
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L2 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1533253 CAPLUS Full-text
 DOCUMENT NUMBER: 151:575541
 TITLE: Controlled atmosphere for sintering of antimony
 vanadium phosphate frits to glass plates for sealed
 glass packages
 INVENTOR(S): Boek, Heather D.; Banks, Andrew D.; Howles, Jason A.
 PATENT ASSIGNEE(S): Corning Incorporated, USA
 SOURCE: PCT Int. Appl., 40pp.; Chemical Indexing Equivalent to
 151:575538 (US)
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009148506	A2	20091210	WO 2009-US3111	20090520
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM US 20090297861 A1 20091203 US 2008-156202 20080530 PRIORITY APPLN. INFO.: US 2008-156202 A 20080530 AB A method for controlling the oxygen level within an oven while sintering a frit to a glass plate is described, the sintered frit and glass plate being subsequently sealed to another glass plate to form a sealed glass package. Examples of the sealed glass package include a light-emitting device (such as organic light emitting diodes (OLED)), a photovoltaic device, a food container, and a medicine container. IT 10102-24-6, Lithium metasilicate (Li ₂ SiO ₃) RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative) (crystallized phase in frits; controlled atmospheric for sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages) RN 10102-24-6 CAPLUS CN Silicic acid (H ₂ SiO ₃), lithium salt (1:2) (CA INDEX NAME)				



● 2 Li

TITLE: Sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages
 INVENTOR(S): Boek, Heather D.; Botelho, John W.; Howles, Jason A.
 PATENT ASSIGNEE(S): Corning Incorporated, USA
 SOURCE: PCT Int. Appl., 61pp.; Chemical Indexing Equivalent to 151:575539 (US)
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009148502	A2	20091210	WO 2009-US3087	20090519
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20090297862	A1	20091203	US 2008-156377	20080530
PRIORITY APPLN. INFO.:			US 2008-156377	A 20080530
AB	A method for sintering a frit to a glass plate where the sintered frit and glass plate are subsequently sealed to another glass plate to form a sealed glass package. Examples of the sealed glass package include a light-emitting device (such as organic light emitting diodes (OLED)), a photovoltaic device, a food container, and a medicine container.			
IT	10102-24-6, Lithium metasilicate (Li2SiO3) RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative) (crystallized phase in frits; sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages)			
RN	10102-24-6 CAPLUS			
CN	Silicic acid (H2SiO3), lithium salt (1:2) (CA INDEX NAME)			



● 2 Li

L2 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2009:1507150 CAPLUS Full-text
 DOCUMENT NUMBER: 151:575539
 TITLE: Sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages
 INVENTOR(S): Boek, Heather Debra; Botelho, John W.; Howles, Jason Arthur
 PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 19pp.; Chemical Indexing
Equivalent to 152:17496 (WO)
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090297862	A1	20091203	US 2008-156377	20080530
WO 2009148502	A2	20091210	WO 2009-US3087	20090519
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2008-156377 A 20080530

AB A method for sintering a frit to a glass plate where the sintered frit and glass plate are subsequently sealed to another glass plate to form a sealed glass package. Examples of the sealed glass package include a light-emitting device (such as organic light emitting diodes (OLED)), a photovoltaic device, a food container, and a medicine container.

IT 10102-24-6, Lithium metasilicate (Li2SiO3)
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(crystallized phase in frits; sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages)

RN 10102-24-6 CAPLUS

CN Silicic acid (H2SiO3), lithium salt (1:2) (CA INDEX NAME)



● 2 Li

L2 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:1507138 CAPLUS [Full-text](#)
DOCUMENT NUMBER: 151:575538
TITLE: Sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages
INVENTOR(S): Banks, Andrew Douglas; Boek, Heather Debra; Howles, Jason Arthur
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 11pp.; Chemical Indexing
Equivalent to 151:575541 (WO)
CODEN: USXXCO
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090297861	A1	20091203	US 2008-156202	20080530
WO 2009148506	A2	20091210	WO 2009-US3111	20090520
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MM, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: US 2008-156202 A 20080530

AB A method for controlling the oxygen level within an oven while sintering a frit to a glass plate is described, the sintered frit and glass plate being subsequently sealed to another glass plate to form a sealed glass package. Examples of the sealed glass package include a light-emitting device (such as organic light emitting diodes (OLED)), a photovoltaic device, a food container, and a medicine container.

IT 10102-24-6, Lithium metasilicate (Li2SiO3)
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(crystallized phase in frits; sintering of antimony vanadium phosphate frits to glass plates for sealed glass packages)

RN 10102-24-6 CAPLUS

CN Silicic acid (H2SiO3), lithium salt (1:2) (CA INDEX NAME)



● 2 Li

L2 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:702089 CAPLUS Full-text

DOCUMENT NUMBER: 151:44799

TITLE: Substrate carrying an electrode, organic electroluminescent device comprising said substrate, and production thereof

INVENTOR(S): Tchakarov, Svetoslav; Besson, Sophie; Jousse, Didier

PATENT ASSIGNEE(S): Saint-Gobain Glass France, Fr.

SOURCE: PCT Int. Appl., 56pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009071822	A2	20090611	WO 2008-FR52109	20081121
WO 2009071822	A3	20090813		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

FR 2924274	A1	20090529	FR 2007-59235	20071122
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PRIORITY APPLN. INFO.:				
			FR 2007-59235	A 20071122

AB The invention relates to a substrate carrying a composite electrode on a main face, said composite electrode comprising an electroconductive network consisting of strands of an electroconductive material based on metal and/or metallic oxide, and having a light transmission of at least 60% at 550 nm, the space between the strands of the network being filled by a so-called insulating filling material. The composite electrode also comprises an electroconductive coating covering the electroconductive network and elec. connected to the strands, said coating having a thickness higher than or equal to 40 nm, and a resistivity $\rho < 105 \Omega \text{ cm}$ and higher than the resistivity of the network. The coating forms a smoothed outer surface of an electrode. The composite electrode also comprises a square resistance lower than or equal to $10 \Omega/\text{square}$. The invention also relates to the production of the composite electrode and to an organic electroluminescent device comprising said electrode.

IT 12627-14-4, Lithium silicate
 RL: PRPH (Prophetic); RCT (Reactant); RACT (Reactant or reagent)
 (substrate carrying electrode, organic electroluminescent device incorporating it, and its manufacture with)

RN 12627-14-4 CAPLUS
 CN Silicic acid, lithium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L2 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:701936 CAPLUS Full-text

DOCUMENT NUMBER: 151:44798

TITLE: Substrate carrying an electrode, organic electroluminescent device comprising said substrate, and production thereof

INVENTOR(S): Tchakarov, Svetoslav; Besson, Sophie; Jousse, Didier; Rohaut, Nathalie

PATENT ASSIGNEE(S): Saint-Gobain Glass France, Fr.

SOURCE: PCT Int. Appl., 71pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009071821	A2	20090611	WO 2008-FR52108	20081121

WO 2009071821 A3 20090813

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

FR 2924274 A1 20090529 FR 2007-59235 20071122

PRIORITY APPLN. INFO.: FR 2007-59235 A 20071122

AB The invention relates to a substrate (1) carrying a composite electrode (2) on a main face (11), said composite electrode comprising an electroconductive network (21) which is a layer consisting of strands of an electroconductive material based on metal and/or metallic oxide, and having a light transmission of at least 60% at 550 nm, the space between the strands of the network being filled by a so-called electroconductive filling material. The composite electrode also comprises an electroconductive coating (22) which can be sep. or not from the filling material covering the electroconductive network and elec. connected to the strands, said coating having a thickness higher than or equal to 40 nm, and a resistivity $\rho < 105 \text{ Ohm cm}$ and higher than the resistivity of the network. The coating forms a smoothed outer surface of an electrode. The composite electrode also comprises a square resistance lower than or equal to $10 \text{ } \Omega/\text{square}$. The invention also relates to the production of the composite electrode and to an organic electroluminescent device (100) comprising said electrode.

IT 12627-14-4, Lithium silicate

RL: PRPH (Prophetic); RCT (Reactant); RACT (Reactant or reagent)
(substrate carrying electrode, organic electroluminescent device incorporating it, and its manufacture with)

RN 12627-14-4 CAPLUS

CN Silicic acid, lithium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L2 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:649572 CAPLUS Full-text

DOCUMENT NUMBER: 151:19852

TITLE: Substrate carrying an electrode, organic electroluminescent device incorporating it, and its manufacture

INVENTOR(S): Tchakarov, Svetoslav; Besson, Sophie; Jousse, Didier

PATENT ASSIGNEE(S): Saint-Gobain Glass France, Fr.

SOURCE: Fr. Demande, 56pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2924274	A1	20090529	FR 2007-59235	20071122
WO 2009071821	A2	20090611	WO 2008-FR52108	20081121
WO 2009071821	A3	20090813		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,				

CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
WO 2009071822 A2 20090611 WO 2008-FR52109 20081121
WO 2009071822 A3 20090813
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.:

FR 2007-59235

A 20071122

AB The present invention has as an aim a support substrate, on a principal face of a composite electrode which comprises a elec. conducting network formed by elec. conducting material bits containing metal and/or metallic oxide, and exhibiting luminous transmission of $\geq 60\%$ at 550 nm. The space between the bits of the network are filled by a matter known as filling. It comprises an elec. conducting coating covering the elec. conducting network and in elec. contact with the bits; the thickness is ≥ 40 nm, the resistivity is $< 105 \Omega \text{ cm}$ but greater than the resistivity of the network, the coating forming an external surface of a smoothed electrode. The composite electrode has also a square resistance $\leq 10 \Omega/\text{square}$. The present invention also concerns its manufacture and an organic electroluminescent device incorporating this electrode.

IT 12627-14-4, Lithium silicate

RL: PRPH (Prophetic); RCT (Reactant); RACT (Reactant or reagent)
(substrate carrying electrode, organic electroluminescent device incorporating it, and its manufacture with)

RN 12627-14-4 CAPLUS

CN Silicic acid, lithium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:1155290 CAPLUS Full-text

DOCUMENT NUMBER: 149:389734

TITLE: Methods of fabricating GaN LED with enhanced light emitting efficiency using a ZnO buffer layer capable of improving crystal interface quality

INVENTOR(S): Chou, Mitch M. C.; Wu, Jih-Jen; Hsu, Wen-Ching

PATENT ASSIGNEE(S): National Sun Yat-Sen University, Taiwan; Sino American Silicon Products Inc.

SOURCE: U.S. Pat. Appl. Publ., 12pp.

DOCUMENT TYPE: CODEN: USXXCO
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: English 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080233671	A1	20080925	US 2007-808565	20070611
PRIORITY APPLN. INFO.:			TW 2007-96110015	A 20070322

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Methods of fabricating a gallium nitride (GaN) light emitting diode (LED) are discussed which entail obtaining a substrate of lithium aluminum oxide (LiAlO₂); growing a GaN nucleus-site layer after growing a zinc oxide (ZnO) buffer layer on the LiAlO₂ substrate to obtain a structure of GaN/ZnO/LiAlO₂ to grow a layer of multiple quantum well (MQW) and a first metal electrode layer; soaking a structure obtained through the above steps in an acid solution to remove the LiAlO₂ substrate and the ZnO buffer layer through etching; and growing a second metal electrode layer on the GaN nucleus-site layer opposite to the ZnO buffer layer to obtain a light emitting device. Thus, GaN defect d. is reduced and lattice match is obtained to have a good crystal interface quality and an enhanced light emitting efficiency of a device thus made.

IT 10102-24-6, Lithium silicate (Li₂SiO₃)
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (substrate; methods of fabricating GaN LED with enhanced light emitting efficiency using ZnO buffer layer capable of improving crystal interface quality)

RN 10102-24-6 CAPLUS

CN Silicic acid (H₂SiO₃), lithium salt (1:2) (CA INDEX NAME)



●2 Li

L2 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2006:1352837 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 146:112448
 TITLE: Conductive pattern materials for transparent electromagnetic shield films for display panels
 INVENTOR(S): Sasaki, Hiroto; Oshima, Naoto
 PATENT ASSIGNEE(S): Fujifilm Holdings Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 205pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006352073	A	20061228	JP 2006-30237	20060207

PRIORITY APPLN. INFO.:

JP 2005-148731

A 20050520

AB The title conductive pattern material is manufactured by (1) exposing a photochem. Ag salt layer, (2) developing, and (3) phys. developing and/or plating. The manufacturing process provides transparent conductive patterns with high conductivity, high electromagnetic shielding, and high transparency. at low manufacturing cost. The conductive materials are applicable to transparent electromagnetic shields for plasma display panels, transparent conductor sheets, and electroluminescent devices.

IT 12627-14-4, Lithium silicate

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)

(sublayer coating composition; conductive pattern materials for transparent electromagnetic shield films for display panels)

RN 12627-14-4 CAPLUS

CN Silicic acid, lithium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L2 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:1122826 CAPLUS Full-text

DOCUMENT NUMBER: 145:464087

TITLE: Organic electroluminescent devices

INVENTOR(S): Onishima, Yasunori; Matsunami, Shigeyuki

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 80pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

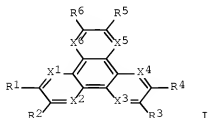
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2006294895	A	20061026	JP 2005-114271	20050412
PRIORITY APPLN. INFO.:			JP 2005-114271	20050412

OTHER SOURCE(S): MARPAT 145:464087

GI



I

AB The laminate films contain light-emitting layers which contain mixts. of organic materials (I) and metal materials, where R1 .apprx. R6 = independently H, halogen, or substitution groups selected from hydroxyl group, amino group, arylamino group, carbonyl group, carbonyl ester group, alkyl group, alkenyl

group, alkoxy group, aryl group, heterocycle group, nitrile group, nitro group, cyano group and silyl group, and X1 .apprx. X6 = independently C or N. The mobility of charge between cathodes and anodes is improved.

IT 10102-24-6, Lithium metasilicate (Li2SiO3)
 RL: DEV (Device component use); USES (Uses)
 (charge-generating layers; organic electroluminescent devices containing light-emitting layers and charge-generating layers)

RN 10102-24-6 CAPLUS

CN Silicic acid (H2SiO3), lithium salt (1:2) (CA INDEX NAME)



●2 Li

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
 (1 CITINGS)

L2 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:902672 CAPLUS Full-text

DOCUMENT NUMBER: 143:238830

TITLE: Organic electroluminescent display device

INVENTOR(S): Kijima, Yasunori; Shibamura, Tetsuo; Matsunami, Shigeyuki; Tomo, Yoichi

PATENT ASSIGNEE(S): Sony Corporation, Japan

SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005076753	A2	20050825	WO 2005-JP3080	20050218
WO 2005076753	A3	20051006		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2006173550	A	20060629	JP 2005-8548	20050117
EP 1718120	A2	20061102	EP 2005-710680	20050218
R: DE, GB				
TW 268118	B	20061201	TW 2005-94104936	20050218
CN 1943277	A	20070404	CN 2005-80011673	20050218
CN 100482019	C	20090422		
US 20070181887	A1	20070809	US 2006-597981	20060815
KR 2007004630	A	20070109	KR 2006-716534	20060817

PRIORITY APPLN. INFO.: JP 2004-40927 A 20040218
 JP 2004-40928 A 20040218
 JP 2004-153204 A 20040524
 JP 2004-334193 A 20041118
 JP 2005-8548 A 20050117
 WO 2005-JP3080 W 20050218

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Disclosed is an easily-produced stack display element wherein light-emitting units resp. comprising an organic layer are stacked on top of one another. By using a stable material for at least a part of a charge-generating layer in such a display element, the display element can be improved in environmental resistance and charge injection efficiency from the charge-generating layer to the light-emitting units. Specifically disclosed is a display element wherein a plurality of light-emitting units comprising at least an organic light-emitting layer are arranged between a cathode and an anode, and a charge-generating layer is interposed between the light-emitting units. At least a part of the charge-generating layer is composed of an oxide or fluoride containing at least either of an alkali metal and an alkaline earth metal.

IT 10102-24-6, Lithium silicon oxide (Li2SiO3)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (charge-generating layer of electroluminescent display device)

RN 10102-24-6 CAPLUS
 CN Silicic acid (H2SiO3), lithium salt (1:2) (CA INDEX NAME)



●2 Li

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2004:1128533 CAPLUS Full-text
 DOCUMENT NUMBER: 142:45714
 TITLE: Lighting system with high mechanical and optical performance
 INVENTOR(S): Watchi, Marie Isabelle; Duran, Maxime; Huignard, Arnaud
 PATENT ASSIGNEE(S): Saint-Gobain Glass France, Fr.
 SOURCE: Fr. Demande, 16 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2856512	A1	20041224	FR 2003-7573	20030623
WO 2005001872	A2	20050106	WO 2004-FR1575	20040623
WO 2005001872	A3	20050217		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1644660 A2 20060412 EP 2004-767431 20040623

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

CN 1809713 A 20060726 CN 2004-80017589 20040623

JP 2007527440 T 20070927 JP 2006-516314 20040623

US 20060289832 A1 20061228 US 2005-561798 20051221

US 7329983 B2 20080212

IN 2005KN02694 A 20061103 IN 2005-KN2694 20051226

PRIORITY APPLN. INFO.: FR 2003-7573 A 20030623

FR 2004-2931 A 20040322

WO 2004-FR1575 W 20040623

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention concerns a lighting system made of luminophore particles dispersed in a solid matrix. The system is durable and allows handling by a user. An application of this lighting system is a transparent device, or a light-diffusing device, in particular a glass which is monolithic, multilayer, simple or multiple.

IT 12627-14-4, Lithium silicate

RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); USES (Uses)

(lighting system with high mech. and optical performance from luminophore particles dispersed in solid matrix)

RN 12627-14-4 CAPLUS

CN Silicic acid, lithium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:134917 CAPLUS Full-text

DOCUMENT NUMBER: 126:150290

ORIGINAL REFERENCE NO.: 126:28949a,28952a

TITLE: Modified wurtzite structure oxide compounds as substrates for III-V nitride compound semiconductor epitaxial thin film growth

INVENTOR(S): Chai, Bruce H. T.

PATENT ASSIGNEE(S): University of Central Florida, USA

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9642114 Al 19961227 WO 1996-US9974 19960610
W: CA, CN, JP, KR
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
US 5625202 A 19970429 US 1995-488741 19950608
CN 1159251 A 19970910 CN 1996-190844 19960610
CN 1105401 C 20030409

PRIORITY APPLN. INFO.: US 1995-488741 A 19950608
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Semiconductor devices (e.g., light-emitting devices, semiconductor lasers, optically pumped semiconductor lasers and optical sensors) are described which comprise a lattice matching wurtzite structure oxide substrate and an Al_xIn_yGa_{1-x-y}N compound semiconductor single crystal film(s) epitaxially grown on the substrate. The lattice matching substrates may be formed from single crystals of: lithium aluminum oxide, lithium gallium oxide, lithium silicon oxide, lithium germanium oxide, sodium aluminum oxide, sodium gallium oxide, sodium germanium oxide, sodium silicon oxide, lithium phosphate, lithium arsenic oxide, lithium vanadium oxide, lithium magnesium germanium oxide, lithium zinc germanium oxide, lithium cadmium germanium oxide, lithium magnesium silicon oxide, lithium zinc silicon oxide, lithium cadmium silicon oxide, sodium magnesium germanium oxide, sodium zinc germanium oxide, and sodium zinc silicon oxide.

IT 10102-24-6, Lithium silicon oxide (Li₂SiO₃)
RL: DEV (Device component use); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (modified wurtzite structure oxide compds. as substrates for III-V nitride compound semiconductor epitaxial thin film growth)

RN 10102-24-6 CAPLUS
CN Silicic acid (H₂SiO₃), lithium salt (1:2) (CA INDEX NAME)



● 2 Li

OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> e cesium carbonate/cn

E37 1 CESIUM CARBIDE (CSC91-)/CN
E38 1 CESIUM CARBIDE ION (CSC41-)/CN
E39 1 --> CESIUM CARBONATE/CN
E40 1 CESIUM CARBONATE (CS2CO3)/CN
E41 1 CESIUM CARBONATE CHLORIDE (CS3(CO3)CL)/CN
E42 1 CESIUM CARBONATE FLUORIDE (CS3(CO3)F)/CN
E43 1 CESIUM CARBONATE FLUORIDE (CS3F(CO3))/CN
E44 1 CESIUM CARBONATE-P-XYLYLENE DIBROMIDE COPOLYMER/CN
E45 1 CESIUM CARBOXYMETHYL CELLULOSE/CN
E46 1 CESIUM CATION/CN
E47 1 CESIUM CERIUM CHLORIDE (CSCECL3)/CN
E48 1 CESIUM CERIUM IODIDE (CSCEI4)/CN

=> s e39

L3 1 "CESIUM CARBONATE"/CN

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3 and electrolumin?

2894 L3

101416 ELECTROLUMIN?

L4 184 L3 AND ELECTROLUMIN?

=> s l3 and electrolumin? and (charge generat?)

2894 L3

101416 ELECTROLUMIN?

608317 CHARGE

79049 CHARGES

652198 CHARGE

(CHARGE OR CHARGES)

1361628 GENERAT?

12557 CHARGE GENERAT?

(CHARGE(W)GENERAT?)

L5 6 L3 AND ELECTROLUMIN? AND (CHARGE GENERAT?)

=> d ibib abs hitstr 1-6

L5 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:719810 CAPLUS Full-text

DOCUMENT NUMBER: 151:135201

TITLE: Lamination-structured organic
electroluminescent device

INVENTOR(S): Qiu, Yong; Zhang, Guohui; Duan, Lian; Li, Yinkui

PATENT ASSIGNEE(S): Tsinghua University, Peop. Rep. China; Beijing
Visionox Technology Co., Ltd.; Kunshan Visionox
Display Co., Ltd.

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 28pp.
CODEN: CNXXEV

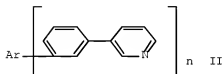
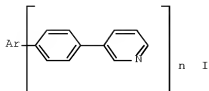
DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101452997	A	20090610	CN 2008-10246831	20081231
PRIORITY APPLN. INFO.:			CN 2008-10246831	20081231
OTHER SOURCE(S):	MARPAT	151:135201		
GI				



AB The title device comprises a pair of electrodes, and an organic luminescent substance between the electrodes. The organic luminescent substance contains at least two luminescent units, and a connection layer between the luminescent units. Said connection layer contains at least one compound in formula I or II, wherein Ar is C6-30 fused-ring arylene, or C6-30 fused-ring heteroarylene, and n is an integer of 2-4. Besides, the compound is doped with alkali metal material or alkali metal compound. In the device, two or more luminescent units are connected together to afford a function of charge generation layer. Therefore, the device has the advantages of high power efficiency, low film-forming temperature, and simple fabrication process.

IT 534-17-8, Cesium carbonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (lamination-structured organic electroluminescent device)

RN 534-17-8 CAPLUS

CN Carbonic acid, cesium salt (1:2) (CA INDEX NAME)



● 2 Cs

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:1457656 CAPLUS Full-text

DOCUMENT NUMBER: 150:13567

TITLE: Organic electroluminescent devices having plural emitting layers laminated via intermediate layers with simplified structure
 Sasaki, Hiroyuki

INVENTOR(S):

PATENT ASSIGNEE(S): Panasonic Electric Works, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008293895	A	20081204	JP 2007-140442	20070528
PRIORITY APPLN. INFO.:			JP 2007-140442	20070528

AB The devices have the intermediate (i.e., charge-generating) layers which are laminates of (A) layers of mixts. containing (A1) complexes or carbonates of electron-donating metals with work function ≤ 3.7 eV and (A2) reducing metals, (B) optional metal layers, and (C) metal oxide layers. The intermediate layers, wherein the complexes or carbonates are reduced sufficiently to form metals, can be formed by such a simple and damage-less process as deposition. The devices show long service life, improved reliability, and high brightness.

IT 534-17-8, Cesium carbonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (organic electroluminescent devices having intermediate layers of laminates of complex (or carbonate)/metal mixed layers and oxide layers)

RN 534-17-8 CAPLUS

CN Carbonic acid, cesium salt (1:2) (CA INDEX NAME)



●2 Cs

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:1457162 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 150:13562

TITLE: White organic light emitting device

INVENTOR(S): Noh, Tae-Yong; Tamura, Shinichiro; Choi, Byoung-Ki; Kim, Myeong-Suk; Kim, Yu-Jin; Han, Eun-Sil

PATENT ASSIGNEE(S): S. Korea

SOURCE: U.S. Pat. Appl. Publ., 10pp.
 CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080297036	A1	20081204	US 2008-73273	20080303
KR 2008105640	A	20081204	KR 2007-53472	20070531
PRIORITY APPLN. INFO.:			KR 2007-53472	20070531

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A white organic light emitting device is described comprising an anode, a cathode, a charge generation layer arranged between the anode and the cathode, and an organic layer arrangement arranged between the anode and the cathode, the organic layer arrangement including a green light emitting layer, a blue light emitting layer, and a red light emitting layer, one of the green light emitting layer, the blue light emitting layer, and the red light emitting layer includes a first light emitting layer and second light emitting layer,

the charge generation layer being arranged between the first light emitting layer and the second light emitting layer.

IT 534-17-8, Cesium carbonate (Cs2CO3)

RL: TEM (Technical or engineered material use); USES (Uses)
(charge generation layer; white organic light emitting device having two light emitting layers with charge generation layer in-between)

RN 534-17-8 CAPLUS

CN Carbonic acid, cesium salt (1:2) (CA INDEX NAME)



●2 Cs

L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:1118075 CAPLUS Full-text

DOCUMENT NUMBER: 149:342872

TITLE: White organic light emitting devices including a color control layer having an electron transport capability and a light interference effect

INVENTOR(S): Noh, Tae-Yong; Hwang, Euk-Che; Tamura, Shinchiro; Kido, Junji

PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd., S. Korea

SOURCE: Eur. Pat. Appl., 15pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1970977	A2	20080917	EP 2008-152641	20080312
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS				
KR 2008083881	A	20080919	KR 2007-24672	20070313
US 20080224605	A1	20080918	US 2008-46754	20080312
PRIORITY APPLN. INFO.:			KR 2007-24672	A 20070313
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT				
AB	White organic light-emitting devices (OLED) including a color control layer are described which comprise at least one white organic light emitting unit interposed between an anode and a cathode, and a color control layer interposed between the cathode and the at least one white organic light emitting unit, the color control layer having an electron transport capability and a light interference effect.			
IT	534-17-8, Cesium carbonate (Cs2CO3)			
	RL: TEM (Technical or engineered material use); USES (Uses) (color control and charge generation layer; white organic light emitting device including color control layer)			
RN	534-17-8 CAPLUS			
CN	Carbonic acid, cesium salt (1:2) (CA INDEX NAME)			



● 2 Cs

L5 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2010 ACS on SIN
 ACCESSION NUMBER: 2008:853767 CAPLUS Full-text
 DOCUMENT NUMBER: 149:163807
 TITLE: White organic light emitting device
 INVENTOR(S): Noh, Tae-Yong; Kido, Junji; Tamura, Shinichiro; Hwang, Euk-Che
 PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd, S. Korea
 SOURCE: Eur. Pat. Appl., 17pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1944809	A2	20080716	EP 2008-150077	20080107
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS				
KR 2008066470	A	20080716	KR 2007-3959	20070112
US 20080171226	A1	20080717	US 2007-946275	20071128
CN 101222023	A	20080716	CN 2008-10002945	20080111
PRIORITY APPLN. INFO.:			KR 2007-3959	A 20070112

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A white organic light emitting device is described comprising an anode, a cathode, and an organic layer formed between the anode and the cathode, wherein the organic layer comprises one green emissive layer, one blue emissive layer, one red emissive layer, and one charge generating layer formed between any two of the foregoing green, blue and red emissive layers. The white organic light emitting device has a tandem structure providing the simplest structure for the three color light emissions of green, blue and red.

IT 534-17-8, Cesium carbonate (Cs2CO3)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (charge generating layer; white organic light emitting device having charge generating layer between electroluminescent layers)

RN 534-17-8 CAPLUS

CN Carbonic acid, cesium salt (1:2) (CA INDEX NAME)



● 2 Cs

L5 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2005:902672 CAPLUS Full-text
 DOCUMENT NUMBER: 143:238830
 TITLE: Organic electroluminescent display device
 INVENTOR(S): Kijima, Yasunori; Shibamura, Tetsuo; Matsunami, Shigeyuki; Tomo, Yoichi
 PATENT ASSIGNEE(S): Sony Corporation, Japan
 SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005076753	A2	20050825	WO 2005-JP3080	20050218
WO 2005076753	A3	20051006		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2006173550	A	20060629	JP 2005-8548	20050117
EP 1718120	A2	20061102	EP 2005-710680	20050218
R: DE, GB				
TW 268118	B	20061201	TW 2005-94104936	20050218
CN 1943277	A	20070404	CN 2005-80011673	20050218
CN 100482019	C	20090422		
US 20070181887	A1	20070809	US 2006-597981	20060815
KR 2007004630	A	20070109	KR 2006-716534	20060817
PRIORITY APPLN. INFO.:			JP 2004-40927	A 20040218
			JP 2004-40928	A 20040218
			JP 2004-153204	A 20040524
			JP 2004-334193	A 20041118
			JP 2005-8548	A 20050117
			WO 2005-JP3080	W 20050218

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Disclosed is an easily-produced stack display element wherein light-emitting units resp. comprising an organic layer are stacked on top of one another. By using a stable material for at least a part of a charge-generating layer in such a display element, the display element can be improved in environmental resistance and charge injection efficiency from the charge-generating layer to the light-emitting units. Specifically disclosed is a display element wherein a plurality of light-emitting units comprising at least an organic light-emitting layer are arranged between a cathode and an anode, and a charge-generating layer is interposed between the light-emitting units. At least a part of the charge-generating layer is composed of an oxide or fluoride containing at least either of an alkali metal and an alkaline earth metal.

IT 534-17-8, Cesium carbonate
 RL: TEM (Technical or engineered material use); USES (Uses)

(charge-generating layer of
electroluminescent display device)
RN 534-17-8 CAPLUS
CN Carbonic acid, cesium salt (1:2) (CA INDEX NAME)



● 2 Cs

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> e lithium carbonate/cn
E49 1 LITHIUM CARBIDE SULFIDE (LI1.9CS3)/CN
E50 1 LITHIUM CARBOLATE/CN
E51 1 --> LITHIUM CARBONATE/CN
E52 1 LITHIUM CARBONATE (6LI2CO3)/CN
E53 1 LITHIUM CARBONATE (7LI2CO3)/CN
E54 1 LITHIUM CARBONATE (LI2CO3)/CN
E55 1 LITHIUM CARBONATE (LICO31-)/CN
E56 1 LITHIUM CARBONATE (LIHC03)/CN
E57 1 LITHIUM CARBONATE FLUORIDE (6LI4(CO3)F2)/CN
E58 1 LITHIUM CARBONATE HYDROXIDE/CN
E59 1 LITHIUM CARBONATE HYDROXIDE (LI11(CO3)2(OH)7)/CN
E60 1 LITHIUM CARBONATE METAPHOSPHATE NITRIDE OXIDE (LI2.6(CO3)0.2
(PO3)0.8NO.300.25)/CN

=> s e51
L6 1 "LITHIUM CARBONATE"/CN

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l6
L7 11932 L6

=> s l7 and electrolumin? and (charge generat?)
101416 ELECTROLUMIN?
608317 CHARGE
79049 CHARGES
652198 CHARGE
(CHARGE OR CHARGES)
1361628 GENERAT?
12557 CHARGE GENERAT?
(CHARGE (W)GENERAT?)
L8 1 L7 AND ELECTROLUMIN? AND (CHARGE GENERAT?)

=> d ibib abs hitstr 1

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:902672 CAPLUS Full-text
 DOCUMENT NUMBER: 143:238830
 TITLE: Organic electroluminescent display device
 INVENTOR(S): Kijima, Yasunori; Shibamura, Tetsuo; Matsunami, Shigeyuki; Tomo, Yoichi
 PATENT ASSIGNEE(S): Sony Corporation, Japan
 SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005076753	A2	20050825	WO 2005-JP3080	20050218
WO 2005076753	A3	20051006		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
JP 2006173550	A	20060629	JP 2005-8548	20050117
EP 1718120	A2	20061102	EP 2005-710680	20050218
R: DE, GB				
TW 268118	B	20061201	TW 2005-94104936	20050218
CN 1943277	A	20070404	CN 2005-80011673	20050218
CN 100482019	C	20090422		
US 20070181887	A1	20070809	US 2006-597981	20060815
KR 2007004630	A	20070109	KR 2006-716534	20060817
PRIORITY APPLN. INFO.:			JP 2004-40927	A 20040218
			JP 2004-40928	A 20040218
			JP 2004-153204	A 20040524
			JP 2004-334193	A 20041118
			JP 2005-8548	A 20050117
			WO 2005-JP3080	W 20050218

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Disclosed is an easily-produced stack display element wherein light-emitting units resp. comprising an organic layer are stacked on top of one another. By using a stable material for at least a part of a charge-generating layer in such a display element, the display element can be improved in environmental resistance and charge injection efficiency from the charge-generating layer to the light-emitting units. Specifically disclosed is a display element wherein a plurality of light-emitting units comprising at least an organic light-emitting layer are arranged between a cathode and an anode, and a charge-generating layer is interposed between the light-emitting units. At least a part of the charge-generating layer is composed of an oxide or fluoride containing at least either of an alkali metal and an alkaline earth metal.

IT 554-13-2, Lithium carbonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (charge-generating layer of electroluminescent display device)

RN 554-13-2 CAPLUS
 CN Carbonic acid, lithium salt (1:2) (CA INDEX NAME)



● 2 Li

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d hist

(FILE 'HOME' ENTERED AT 12:07:14 ON 04 FEB 2010)

FILE 'REGISTRY' ENTERED AT 12:08:33 ON 04 FEB 2010

E LITHIUM SILICATE/CN

L1 3 S E3

FILE 'CAPLUS' ENTERED AT 12:09:22 ON 04 FEB 2010

L2 13 S L1 AND ELECTROLUMIN?

FILE 'STNGUIDE' ENTERED AT 12:11:07 ON 04 FEB 2010

FILE 'REGISTRY' ENTERED AT 12:13:28 ON 04 FEB 2010

E LITHIUM CARBONATE/CN

E LITHIUM TWO CARBONATE/CN

E CESIUM CARBONATE/CN

L3 1 S E39

FILE 'CAPLUS' ENTERED AT 12:16:23 ON 04 FEB 2010

L4 184 S L3 AND ELECTROLUMIN?

L5 6 S L3 AND ELECTROLUMIN? AND (CHARGE GENERAT?)

FILE 'STNGUIDE' ENTERED AT 12:17:50 ON 04 FEB 2010

FILE 'REGISTRY' ENTERED AT 12:20:54 ON 04 FEB 2010

E LITHIUM CARBONATE/CN

L6 1 S E51

FILE 'CAPLUS' ENTERED AT 12:21:48 ON 04 FEB 2010

L7 11932 S L6

L8 1 S L7 AND ELECTROLUMIN? AND (CHARGE GENERAT?)

=>